

S/149/61/000/004/004/008
A006/A101

AUTHORS: Fedorov, P. I.; Mokhosoyev, M. V.

TITLE: A physico-chemical study of the interaction in melts of sodium ditungstate with sodium chromate and silicate, and lead tungstate

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya,
no. 4, 1961, 105-110

TEXT: For the purpose of determining the physico-chemical conditions of refining sodium ditungstate from chromium, silicon and lead admixtures by zonal melting, the authors studied the interaction in the melts of admixtures in the form of sodium chromate and silicate and lead tungstate. Sodium ditungstate (melting point 735°C) was obtained by alloying refined sodium tungstate with tungsten anhydride at 750°C; sodium silicate (melting point 1,027°C) by alloying sodium carbonate with silicic acid at 1,070°C; sodium chromate was recrystallized twice; lead tungstate was obtained from diluted solutions of chemically pure sodium tungstate and lead nitrate. The thermal analysis of the systems was made by recording the heating and cooling curves with a Kurnakov pyrometer. The temperature was measured with the aid of a platinum-platinum rhodium thermocouple.

Card 1/2

MOKHOSOYEV, M. V., CAND CHEM SCI, "PURGING COMPOUNDS
~~ON PURGATION~~ OF MOLYBDENUM IMPURITIES BY THE ZONAL FUSION
METHOD." Moscow, 1961. (MIN OF HIGHER AND SEC SPEC ED
RSFSR. MOSCOW INST OF FINE CHEMICAL TECHNOLOGY IMENI
M. V. LOMONOSOV). (KL-DV, 11-61, 211).

MOKHORTOV, K.V., inzh.

Improving the quality and lowering the cost of rock
materials. Transp. stroi. 16 no.1;21-23 Ja '66.

(MFA 19;1)

APPROVED FOR RELEASE: 06/23/11: CIA PDR86 00513P001134900007-6

中華書局影印

MOKHOROV, L.V.

Development of the construction industry is the most important objective for construction workers employed by the transportation industry. Transp. stroi. 12 no.2:1-3 F '62. (MIRA 15:7)

1. Nachal'nik Glavnogo upravleniya po proizvodstvu stroymaterialov, detaley i lesosagotovok Ministerstva transportnogo stroitel'stva SSSR.

(Construction industry)

MOKHOTOV, K.V., insh.

Precast and prestressed reinforced concrete elements of transportation structures. Bet. i zhel.-bet. no. 3:105-110 Mr '61. (MIRA 14:5)
(Precast concrete construction)
(Prestressed concrete construction)
(Transportation—Buildings and structures)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

MOKHOTOV, I.V., inskh.

For further technical progress in bridge construction. Transp.
stroj. 10 no.11:1-3 V '60. (MIRA 13:11)
(Bridges, Concrete)

NOKHOROV, K.V., inzh.

Expand the introduction of over-all mechanization and automatic processes in construction for the transportation industry.
Transp.stroi. 10 no.3:1-3 Mr '60. (MIRA 13:6)
(Building machinery) (Automatic control)

MOKHORTOV, K.V.

For further technical progress in construction for the transportation industry. Transp.stroi. 9 no.9:1-3 S '59.
(MIRA 13:2)

1. Nachal'nik Tekhnicheskogo upravleniya chlen Kollegii
Ministerstva transportnogo stroitel'stva.
(Railroads--Construction) (Road construction)
(Hydraulic engineering)

N. MURKIN, T.A., Detainee, SACHEMSK, N.Y., U.S.A.

Detained along with an associate, Z. G. KARASOV, a
neurogenetic researcher, approximately 70 years old, in a
detention center, Leningrad, Russia, since 1980.
Ref ID: A65.

1. Perekrittelevaya kil'edzhe ne skryt' zvaniye i imya.
Lat'senko) Grinderskaya ne vtsel'skaya. Izh. "Voprosy sovremennoj
klinika" (zav. - prof. V. A. Mikheil'son) i d. dokt. med. nauk, na
univerzitetu imeni I. M. Sechenova, Moskva.

GOLUB, D.M., akademik; AMINOVICH, A.P.; GAYKO, L.A.; LEONT'YEV,
A.S.; LEONT'YUK, L.A.; MOKHOMT, V.A.; NOVIKOV, I.I.;
OKLOVA, B.L.; POKOPOUK, V.A.; SAVCHENKO, I.Ye.;
KHEYNMAL, F.B.

[Formation of new nervous and vascular tracts in the
organs of the small pelvis] Obrazovanie novykh nervnykh
i sosudistykh putei organov malogo taza. Izd red. M.I.
Goluba. Minsk, 1974. 198 p. (MIA 181)

1. Akademiya nauk BSSR, Minsk. Instytut fizioligii.
2. Akademiya nauk Belorusskoy SSR (Ter Golub).

MOKHORT, V.A., kand.med. nauk (Grodno)

Some data on the restoration of bladder function in experimental injury of the spinal cord, Vop. neirokhir. 27 no.4:38-41
Jl-Ag'63 (MIRA 1752)

1. Kafedra fakul'tetskoy khirurgii (zav. - doktor med. nauk S.M. Lutsenko) Grodzenskogo meditsinskogo instituta.

MOKHORT, V.A.

Third Conference of the Surgeons of Grodno Province. Zdrav.Bel.
9 no.2:81 F'63. (MIA 16:7)
(GRODNO PROVINCE--TRAUMATISM--CONGRESSES)

MOKHOMT, Vyacheslav Andreyevich; KRYKOVSKAYA, B., red.; SIDENKO, N.,
tekhn. red.

[Actinomycosis of the urogenital organs] Aktinomikoz reche-
polovykh organov. Minsk, Gosizdat BSSR, 1963. 109 p.
(MIRA 16:12)

(GENITOURINARY ORGANS--DISEASES)
(ACTINOMYCOSIS)

MOKHORT, V.A.; STASHEVSKIY, G.A.

Diagnosis of a kidney carbuncle. Zdrav.Bel. 8 no.12:60-61 D
'62. (MIRA 16:1)

1. Iz kafedry urologii Belorusskogo instituta usovershenstvovaniya vrachey (zav. kafedroy - prof. A.I.Mikhel'son).
(KIDNEYS--DISEASES) (CARBUNCLE)

MKHORT, V. A., kand. med. nauk

Actinomycotic lesions of the urogenital organs. Khirurgija no.4:
126-130 '62. (MIRA 15:6)

1. Iz urologicheskoy kliniki (zav. - prof. A. I. Mikhel'son)
Belorusskogo instituta usovershenstvovaniya vrachey.

(GENITOURINARY ORGANS--DISEASES) (ACTINOMYCOSIS)

MIKHEL'SON, A.I., prof.; MENGORT, V.A.

Actinomycosis of the trachus. Urologia no.1:84-85 '62.

(MIRA 15:11)

1. Is urologicheskoy kliniki (zav. - prof. A.I. Mikhel'son)
Belorusskogo instituta usovershenstvovaniya vrachey.
(ACTINOMYCOSIS) (URINARY ORGANS—TUMORS)

SAVCHENKO, N.; MOKHORT, V.

Fourth All-Union Conference of Urologists. Zdrav.Bel. 7 no.11:
66-67 N '61. (MIRA 15:11)
(UROLOGY--CONGRESSES)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

MOKHORT, V.A.

Conference of urologists of the Ukrainian S.S.R., Zdrav. Bel.
7 no. 2:70-71 F '61. (MIRA 14:2)
(UROLOGY--CONGRESSES)

TROFIMOV, Z.A.; MOKHOT, V.A.

Restorative operations on the lower segment of the ureter. Zdrav.
Bel. 6 no.11;23-25 N '60. (MIRA 13:12)

Is kafedry urolegii (savduyushchiy kafedroy - professor A.I. Mikhel'son)
Belorusskogo usovershenstrevaniya vrachey.
(URETER3—SURGERY)

MOKHORT, V. A. — Cand Med Sci -- (diss) "Actinomycosis of the
urogenital organs," Minsk, 1960, 16 pp, 250 cop. (Minsk State Medical
Institute) (KL, 45-60, 128)

MOKHORT, V.A.; GRENADER, A.B.

Chair-saddle for perineal and pelvic electrization. Urologia 24
no.3:70-71 My-Je '59. (MIRA 12:12)

1. Iz kafedry urologii (zav. - prof. M.N. Zhukova) i nervnykh bolezney
(zav. - deyatel'nyy chlen AN BSSR prof. D.A. Markov) Belorusskogo
instituta usovershenstvovaniya vrachey.

(ELECTROTHERAPY, in var. dis.
urol. dis., chair-saddle (Bus))
(URINARY TRACT, dis.
electrother., chair-saddle (Bus))

SAVCHENKO, N.Ye., kand.med.nauk; NOKHORT, V.A., assistant

Some problems of radiodiagnosis in urology. Zdrav. Belor. 5 no.10:
27-31 O '59. (MIRA 13:2)

1. Iz kafedry urologii Voyenno-meditsinskoy ordena Lenina akademii
im. S.M. Kirova (nachal'nik - doktor med.nauk G.S. Grebenashchikov) i
kafedry urologii Beloruskogo instituta usovershenstvovaniya vrachey
(zaveduyushchiy - doktor med.nauk A.I. Mikhel'son).
(URINARY ORGANS--RADIOGRAPHY)

MOKHORI, V.A.

Physical methods of treatment in some diseases of the male uro-genital organs. Zdrav.Belor. № no.3:28-30 Mr '58. (MIRA 10:7)

1. Iz kafedry urologii Instituta usovershenstvovaniya vrachey
(zaveduyushchiy kafedroy - professor M.N. Zhukova).
(THERAPEUTICS, PHYSIOLOGICAL)
(GENITOURINARY ORGANS--DISEASES)

MOKHORT, V.A.; RUBINSHTEYN, I.S.

Diagnosis and clinical aspects of urogenital actinomycosis. Urologii
21 no.2:39-44 Ap-Je '56.
(MIRA 9:12)

1. Is knafedry urologii (sav. - prof. M.N.Zhukova) Belorusskogo gosu-
darstvennogo instituta usovershenstvovaniya vrachey.

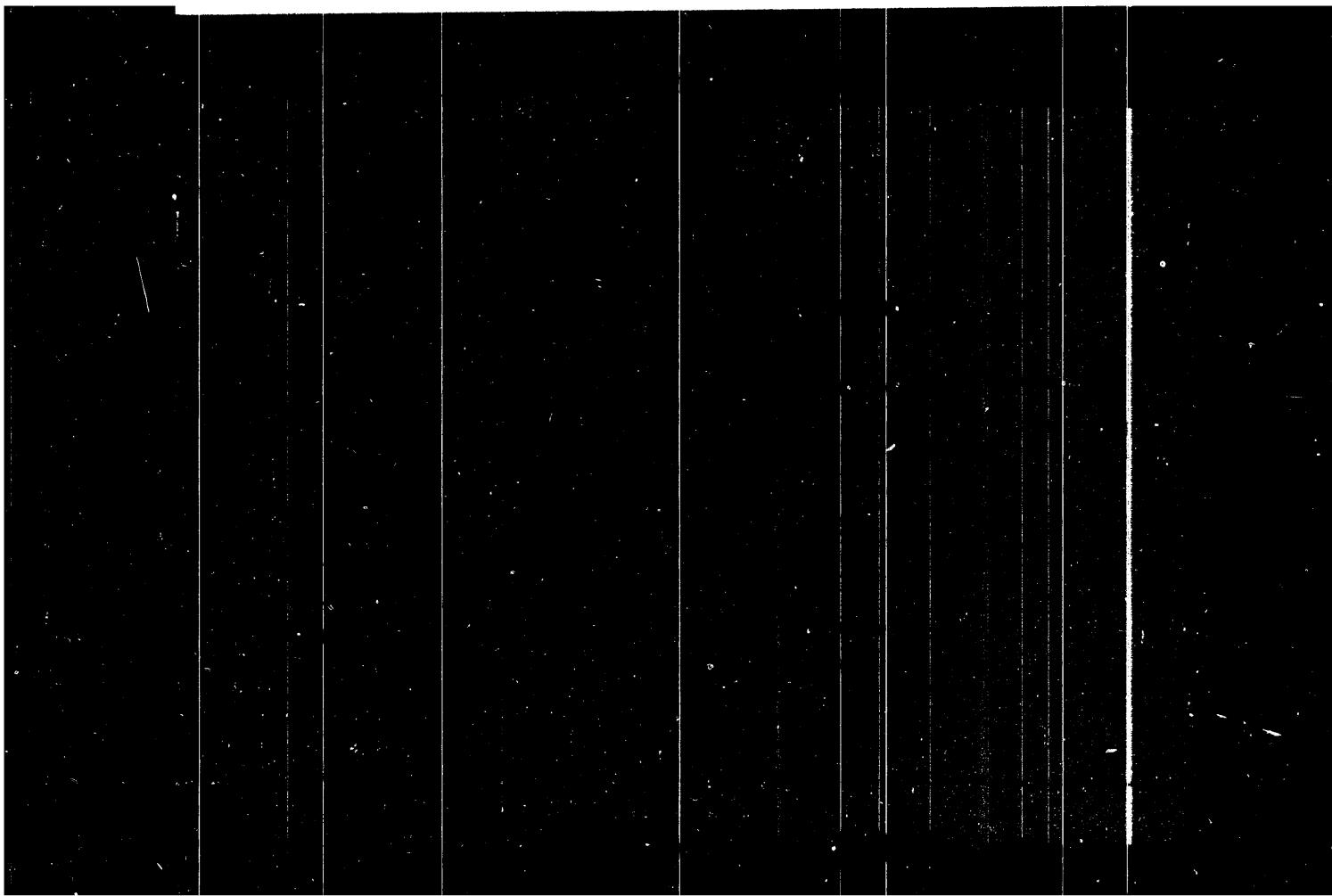
(ACTINOMYCOSIS,

urogenital system (Rus))

(UROGENITAL SYSTEM, diseases,

actinomycosis (Rus))

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MOKHOT, S.F.

SU-1 universal saccharimeter. Sakh.prom. 27 no.11:16-17 '53.
(MIA 7:1)

1. KIP.

(Sugar industry--Equipment and supplies)

~~MOKHORF, S.F.~~

~~Quality of control and measuring instruments. Sakh.prom. 27 no.9:12-13 '53.
(MERA 6:11)~~

1. Zavod "KIP" [kontrol'no-izmeritel'nykh priborov].
(Sugar industry--Equipment and supplies)

MOKHORT, I. S.

Raschety organizatsii zagotzerna s gosudarstvennym biudzhetom /Settlements of the All-Union office for the storage and distribution of grain with the state budget/. Moskva, Gosfinizdat, 1953. 104 p.

SO: Monthly List of Russian Accessions, Vol. 7 No. 1 April 1954.

L 40908-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD
ACC NR: AP6030181 SOURCE CODE: UR/0148/66/000, "m", 0147/0151

AUTHOR: Belostkiy, A. V.; Mokhort, A. V.; Permyakov, V. G.

ORG: Kiev Polytechnical Institute (Kiyevskiy politekhnicheskiy institut)

TITLE: High-temperature roentgenography of Armco-iron nitriding

SOURCE: IVUZ. Chernaya metallurgiya, no. 5, 1966, 147-151

TOPIC TAGS: x ray analysis, austenite

ABSTRACT: Up to the present time only the end products of nitriding steel and iron after cooling of the specimens to room temperature have been studied. Now, the authors have developed a method to study the gaseous saturation of the metals on the basis of which is the direct roentgenographic analysis of nitrided specimens in the x-ray chamber. The special installation and high-temperature x-ray chamber used in the method are described. X-ray patterns of the initial stages of isothermal decomposition of recooled and nitrided Armco-iron (nitrided austenite) at 200°C are presented to illustrate the usefulness of the method. Orig. art. has: 4 figures.
[JPRS: 36,728]

SUB CODE: 11, 20 / SUBM DATE: 28Sep64 / ORIG REF: 007

Card 1/1 MLC

UDC: 669.12:621.785.53

08187120

ZIKEME, Ye.P. (Kiev, ul. P.Osipenko, d.2, kv.1); MOKHNYUK, Yu.N.

Diagnosis of mitral valve calcifications and the surgical
tactics in them. Klin.khir. no.11-40-45 N '62. (MIRA 16:2)

1. Klinika torakal'noy khirurgii (zav. - prof. N.M. Amosov)
Kiyevskogo instituta tuberkuleza.
(MITRAL VALVE—CALCIFICATION)

AMOSOV, Nikolay Mikhaylovich, prof.; LISSOV, Igor' Leonidovich;
SIDARENKO, Lena Nikolayevna; Prinimali uchastliye:TRESHCHINSKIY,
A. I.; MOKHMYUK, Yu.N.; MALAKHOVA, A.V.; BEREZOVSKIY, K.K., red.;
CHUCHUPAK, V.D., tekhn. red.

[Heart surgery with artificial blood circulation] Operatsii na
serdtse s iskusstvennym krovoobrashcheniem. Pod red. N.M.
Amosova. Kiev, Gos.med.izd-vo USSR, 1962. 245 p.
(MIRA 16:7)

1. Chlen-korrespondent AMN SSSR (for Amosov).
(HEART--SURGERY) (PERFUSION PUMP (HEART))

ANISOV, N.M., prof.; LISSOV, I.L.; MOKHNIUK, Yu.N.; SIDARENKO, L.N.;
TRUSHCHINSKIY, A.I.

Preliminary experience with the use of artificial circulation
in cardiac surgery. Vest.khir. 86 no.3:10-20 Mr '61.

(MIRA 14:3)

1. Iz Ukrainskogo instituta tuberkuleza (dir. - dotsent A.S.
Memolat) i Kiyevskogo instituta usovershenstvovaniya vrachey
(dir. - dotsent M.N. Umovist).
(BLOOD—CIRCULATION, ARTIFICIAL)

MOKHNYUK, Yu.N. (Kiyev, ul. Novostroitelej naya, d.29.kv.11)

First experiment in transventricular commissurotomy in mitral stenosis. Grud.khir. 3 no.1:14-17 Ja-F '61. (MIRA 16:5)

1. Is kliniki torakal'noy khirurgii (zav. - prof. N.M.Amosov)
Kiyevskogo instituta tuberkuleza (dir. - dotsent A.S.Mamolat).
(MITRAL VALVE--SURGERY)

MOKHNYUK, Yu. N. Cand Med Sci -- *Pulmonary*
Resection ~~of the stomach~~ in combination
with ~~anterior~~ osteoplastic thoracoplasty in tuberculosis." L'vov, 1961
(L'vov State Med Inst). (KL, 4-61, 110)

AMOSOV, N.M.; LISSOV, I.L.; MOKHNYUK, Yu.N.; SIDARENKO, L.N.; TRESHCHINSKIY,
A.I.

Heart operations with the use of artificial blood circulation.
Grud. khir. 2 no.6:18-30 № 9 '60. (MIRA 14:1)

1. Is kliniki torakal'noy khirurgii Ukrainskogo instituta tuberkuleza
(dir. - dotsent A.S. Mamolat) i kafedry torakal'noy khirurgii
Kiyevskogo instituta usovershenstvovaniya vrachey (dir. - dotsent
M.N.Umovist). Adres avtorov: Kiyev, 38, Baykovaya gora, Institut
tuberkuleza.

(BLOOD—CIRCULATION, ARTIFICIAL)
(HEART—SURGERY)

MOKHIVSKYI, Pavlo (Kiev, ul. Klinicheskaya, d.4)

Pneumonectomy with simultaneous osteoplastic thoracoplasty
for treating tuberculosis. Nov.khir.arkh. no.1:30-35 Jan.
'59. (MIRA 12:6)

1. Klinika torakal'noy khirurgii (zav. - prof. N.M.Amosov)
Kiyevskogo nauchno-issledovatel'skogo instituta tuberkuleza.
(LUNGS--SURGERY) (RIBS--SURGERY)

MOKHNO, D.F., kombayner

Harvesting 170 hectares of corn with the XU-2A combine is our
present to the party congress. Mekh. sil'. hosp. #2
no. 9:3 S '61. (MIRZ 14:11)

1. Kolkhoz "Oktyabr'", Borznenskogo rayona, Chernigovskoy
oblasti. (Ukraine-corn(Maize)--Harvesting)

MOKHNEV, Ya. L. (Kiyev)

Improving publicity on tuberculosis control in rural areas. Vrach.
delo no.2:191-194 F '58. (MIRA 11:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut tuberkuleza.
(TUBERCULOSIS--PREVENTION)

IVANOV, A.Ya.; MOKHNENKO, A.P.

Characteristics of industrial traumatism according to data of the Ivanov
the Mechnikov Hospital in Leningrad. Trudy LI/MI Tom. 1, No. 1, 1951.

Nonindustrial traumatism according to data of the Mechnikov
Hospital in Leningrad. Ibid.:148-153

1. Kafedra obshchey khirurgii No.2 (zav. Kafedra obshchey khirurgii
Ivanov) i kafedra organizatsii zdravookhraneniya (zav. Kafedra organizatsii
chiy obyazannosti zaveduyushchego kafedroy - prof. V. V. Slobodchikova)
Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

MCKPNENKO, A.P. ; PRIM. N. .N.

Quality of medical service and medical staff according to data of the Medicinskoy Hospital and of the Leningradskoy Polyclinic No.25. Trudy MGU 72:154-61. 1972.

1. Kafedra operativnoj i zashchitnoj meditsiny (kurgan) na obyazannosti zvezdnykh lekarей - doktora A. P. Mekhnenco Leningradskogo gosudarstvennogo tekhnicheskogo universiteta i Ob"edinennaya bol'ničnaia klinika MGU, Leningrad. vrach bol'ničnye i zvezdnye lekarë vrach kliniki MGU, Leningrad.

MOKHnenko, A.P., dotsent (Leningrad)

Role of sanitary epidemiology stations in lowering the disease incidence
of the population. Sov. zdrav. 21 no.6:44-48 '62. (MIA 15:5)

1. Iz kafedry organizatsii zdравоохранения i istorii meditsiny
(zav. - prof. Ye.Ya.Belitskaya) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(EPIDEMIOLOGY)

MOKHnenko, A., dotsent (Leningrad)

"Organization of the work of a dispensary in the urban hospital"
by S.IA.Freidlin. Reviewed by A.Mokhnenko. Zdrav. Turk. 5 no.2:
41-42 Mr-Apr '61. (MIRA 14:5)
(HOSPITALS—OUTPATIENT SERVICES) (FREIDLIN, S.IA.)

MOHNNENKO, A.P., dotsent (Leningrad)

Problems in the study of disease incidence and disease registration
in planning the work of the public health physician. Zdrav. Turk.
5 no.1:36-37 Ja-F '61. (MIRA 14:6)
(DISEASES--REPORTING) (PUBLIC HEALTH)

NOKHINIKO, A.P., detsent

Standard requirements of an urban population for epidemiological
and sanitary service. Vrach.delo no.5:521-523 My '59. (MIRA 12:12)

1. Kafedra organizatsii zdorovookhraneniya i istorii meditsiny (zav. -
prof. B.S. Sigal) Leningradskogo sanitarno-gigiyenicheskogo meditsin-
skogo instituta.

(PUBLIC HEALTH) (MEDICAL PERSONNEL)

FROLIOVA, N.A.; MOKHNIENKO, A.P.

Method of teaching a course in the organization of the public health system. Trudy LSQMI 36:113-121 '56. (MIRA 14:1)
(PUBLIC HEALTH ADMINISTRATION-STUDY AND TEACHING)

MOKEINIKO, A.P.; POVALYAYEVA, A.T.

Result of outpatient treatment in peptic ulcer. Trudy LSOMI 20:
288-296 '54.
(MIRA 10:8)

1. Kafedra organizatsii zdorovokhraneniya Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, zav. kafedroy - kandidat meditsinskikh nauk B.P.Pisarev i Kafedra propadevtiki vnutrennikh bolezney Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta, zav. kafedroy - prof. S.M.Ryss.
(PEPTIC ULCER, therapy,
outpatient clin.)
(OUTPATIENT SERVICES,
in peptic ulcer)

MOKHnenko, A. P.

Mokhnenko, A. P. "Street trauma of children in Lenin grad, 1944 and 1945",
Sbornik nauch. trudov (n-vo zdrav okhraneniya RSFSR, les.,
nauch.-issled. in-t vosstanovleniya trudospesnosti fiz.
defektivnykh detey im. prof. Turnera), Leningrad, 1951, p. 22-3.

SO: U - 3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 1, 1953).

MOKHNATSKAYA, B. P.

2775. Rol' kooperativoy promyshlennosti SSSR v osushchestvlenii krutogo pod'yema
proizvodstva predmetov narodnogo potrebleniya. M., 1954. 16c. 22 cm.
(Akad. Obshehestv. nauk pri tsk kpss. Kafedra polit. zkonomii) 220zk2. 2 ts.
(54-55716)

SO. Knizhnaya Letopis, Vol. 2, 1955

MOKHATKIN, V., mладший научный сотрудник

Ensiling corn with the addition of urea. Zhivotnovodstvo 23
no.6:76-77 Je '61. (MIRA 16:2)

1. Sibirskiy nauchno-issledovatel'skiy institut zhivotnovodstva.
(Corn (Maize)) (Urea) (Ensilage)

MOKHATKIN, M. I.)

Equilibrium and structure of thermodynamic surfaces. Zhur. fiz. khim. 37 no. 3:646-647 Mr '63. (MIRA 17:5)

1. Saratovskiy pedagogicheskiy institut.

MOKHATKIN, M.P.

"Linear" phase transitions in solids viewed in relation to
P.S.Ehrenfest's equations. Fiz. tver. tela 5 no.8:2049-2051
Ag '63. (MIRA 16:9)

1. Saratovskiy gosudarstvennyy pedagogicheskiy institut.
(Phase rule and equilibrium)

L 18547-63

ACCESSION NR: AP3005307

state in a magnetic field. Orig. art. has: 16 formulas.

ASSOCIATION: Saratovskiy gosudarstvennyy pedagogicheskiy institut (Saratov State
Pedagogical Institute)

SUBMITTED: 11Dec62

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NO REF Sov: 003

OTHER: 003

L 18547-63 EWT(1)/BDS/EWP(q)/EWT(m)/ES(s)-2 AFFTC/ASD/ESD-3/
IJP(C)/SSD Pt-4 GQ/JD

ACCESSION NR: AP3005307 8/0181/63/005/008/2049/2051

AUTHOR: Mokhnatkin, M. P.

TITLE: "Linear" phase transitions in solids (in connection with the equations of
 P. S. Erenfest)

SOURCE: Fizika tverdogo tela, v. 5, no. 8, 1963, 2049-2051

TOPIC TAGS: phase transition, Clapeyron-Clausius, Erenfest, thermal conductivity,
 thermodynamic potential, equilibrium, ferroelectric transition

ABSTRACT: It is shown that there exists a definite connection between Clausius-Clapeyron's law, generally considered to govern first-order phase transitions, and Erenfest's law, generally thought to govern second-order transitions. It is demonstrated that Erenfest's formula may be used for first-order phase transitions as well, along the rectilinear segment of the equilibrium curve. The "linear" phase transitions of the first order, here investigated, are characterized by a jump in thermal capacity in the well-known equation of Erenfest. It is assumed that ferroelectric transitions are "linear" phase transitions, whereas out of the three possibilities for Erenfest's formula there is but one ($dT/dE = \text{constant}$). A third example of "linear" transitions in solids may be seen in the superconductivity

Card 1/2

MUKHNTAKIN, M.P.

Shape of the phase lines in connection with jumps in thermodynamic quantities. Zhur.fiz.khim. 35 no.11:2635-2656 N '61.
(NIRA 14 12)

1. Saratovskiy pedagogicheskiy institut.
(Phase rule and equilibrium)

Curvature of Phase Lines at the Triple Point

S/076/60/034/012/027/027
B020/B067

greater than that of the evaporation line at the triple point. If $(V_3 - V_1) < (V_3 - V_2)$ or $V_2 < V_1$ as is the case with ordinary ice, then $(dP/dT)_{21} < 0$. In this case, the curvature of the sublimation line is smaller than that of the evaporation line:

$$(d^2P/dT^2)_{13} < (d^2P/dT^2)_{23}, \text{ etc.}$$

From this it is evident that the curvature of phase lines at the triple point is determined by the change in the density of the substance during the transition from one phase to the other. There are 1 figure and 2 Soviet references.

ASSOCIATION: Saratovskiy pedagogicheskiy institut (Saratov Pedagogical Institute)

SUBMITTED: March 14, 1960

Card 2/2

S/076/60/034/012/027/027
B02C/B067

AUTHOR: Mokhnatkin, M. P.
TITLE: Curvature of Phase Lines at the Triple Point
PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 12,
pp. 2846-2847

TEXT: As is known, the equilibrium between three phases of a pure substance is characterized by a triple point (e.g., the equilibrium ice - water - vapor). The differential equations for phase transitions along the equilibrium curve read

$$(\Delta\varphi)' = 0; \quad (\Delta\varphi)'' = 0; \quad (\Delta\varphi)''' = 0; \quad (\Delta\varphi)^n = 0 \quad (1);$$

and the curvature of phase lines at the triple point is given by
 $[(dP/dT)_{21} - (dP/dT)_{23}] / [(dP/dT)_{12} - (dP/dT)_{13}] = (v_3 - v_1) / (v_3 - v_2) > 0 \quad (9).$
If $(v_3 - v_1) > (v_3 - v_2)$ or $v_2 > v_1$, it results from equation (9) that
 $(dP/dT)_{13} > (dP/dT)_{23}$. The curvature of the sublimation line will be ✓

Card 1/2

Heat Capacity Discontinuities Related to
the Equations of Melting

77391
SOV/17-300123-1B

$$\Delta C_p = 4(\Delta V)(P + a) - \frac{2(\Delta V)(P + 2a)}{T} - \frac{4(\Delta V)(P + a)^2}{T}, \quad (4)$$

where $\alpha = \frac{\partial V}{\partial T}$; $\beta = -\frac{\partial V}{\partial P}$. There are 2
Soviet references.

SUBMITTED: February 14, 1959

Card 3/3

Hence Discontinuity Discontinuities Related to
the Operations of Melting

77321
SOV/57-30-2-18/18

$$\Delta\varphi_{TT} + 2\Delta\varphi_{Tr}\left(\frac{dP}{dT}\right) + \Delta\varphi_p\left(\frac{d^2P}{dT^2}\right) + \Delta\varphi_{rr}\left(\frac{dP}{dT}\right)^2 = 0, \quad (2)$$

where $\Delta\varphi_{TT} = -\frac{\Delta C_p}{T}$, etc are partial derivatives.
Assuming that

$$\frac{dP}{dT} = \frac{2(P+a)}{T},$$

where a is a constant (for Pb, $a = 39222 \text{ kg/cm}^2$), he obtains the equation of the discontinuity in the form convenient for computations.

Diagram 17/2

UDC 537.550

UDC
537.550

Author:

Mokhnatkin, M. P.

Title:

Heat Capacity Discontinuities Related to the Equilibrium of Melting

Institution:

Zhurnal Tekhnicheskoy Kibernetiki, 1960, vol. 4, no. 1, p. 100
(USSR)

Abstract:

As is known (M. P. Mokhnatkin, ZhTKh., 1960, v. 4, p. 100), the general law of phase transitions is given by

$$\Delta\varphi' = 0; \Delta\varphi'' = 0; \Delta\varphi''' = 0; \Delta\varphi^* = 0, \quad (1)$$

where φ_1 , φ_2 are specific thermodynamic potentials of the substance at various phases; $\Delta\varphi''$ are total derivatives with respect to temperature alone, the T^* , of equilibrium. The author investigates the second differential equation for phase transitions:

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

24(6)
AUTHOR: Mokhnatkin, K. P.

TITLE: On the Thermodynamics of Helium (O termodinamike geliya)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1959,

Vol 36, Nr 3, p 963 (USSR)

ABSTRACT: In this "Letter to the Editor" the author publishes a short critique of the paper by B. N. Yesel'son, M. I. Kaganov, and I. M. Lifshits, in which these authors showed theoretically that the λ -transitions in solutions of helium isotopes are found to be phase transitions of the second kind. The author draws attention to the fact that in two formulae of this paper errors have been committed in that Yesel'son et al. omitted terms. These omissions essentially consist in the fact that in one of the formulae, which generally can be written down as: $d\mu/dT = \partial\mu/\partial T + (\partial\mu/\partial P)dP/dT$, the term with dP/dT was omitted. The Formulae by Yesel'son et al. corrected in this way by the author are written down in the original as well as in the corrected form. There are 2 Soviet references.

SUBMITTED: October 21, 1958
Card 1/1

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

SOV/76-32-9-1/46

On the Second Order Equilibrium Points (In Connection With the Problem of
Second Order Phase Transitions)

irregular variations in the specific heat and compressibility.
There are 3 figures and 13 references, 12 of which are Soviet.

ASSOCIATION: Saratovskiy pedagogicheskiy institut (Saratov Pedagogic Institute)

SUBMITTED: April 20, 1957

Card 2/2

AUTHOR: Mokhnatkin, M. P. SOV/76-32-9-41/46

TITLE: On the Second Order Equilibrium Points (In Connection With the Problem of Second Order Phase Transitions) (O tochkakh ravnovesiya vtorogo roda (v svyazi s problemoy fazovykh perekhodov vtorogo roda))

PERIODICAL: Zhurnal fizicheskoy khimii, 1958 Vol 32, Nr 9. pp 2213-2215 (USSR)

ABSTRACT: Second order phase transitions also include such intersections of phase lines which fulfill the conditions of Ehrenfest (Erenfest): phase transitions without heat transformation and without change in the volumes of the system, but with irregular variations in the specific heat and the compressibility of the phases. In earlier articles (Refs 4-7) the author has shown that all known phase transformations can be explained without using the hypotheses of Ehrenfest. In the present paper the author subjects the postulates which deal with equilibrium points of the second order to a critical analysis. He arrives at the result that the isolated points of Ehrenfest ($\frac{dP}{dT} = \frac{0}{0}$) are in reality not points of phase transition with

Card 1/2

MOKHNAKIN, M.P.

AUTHOR: Mokhnatkin, M.P. 76-11-32/35

TITLE: On Contradictions in P.S.Ehrenfest's Theory (O protivorechiyakh v teorii P.S.Ehrenfesta)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 11, pp.2584-2585 (USSR)

ABSTRACT: This is a reply to I.A.Basarov [Ref.2]. Reference is made to the letter written by Mokhnatkin [Ref. 1], in which it was shown that Ehrenfest's conditions for phase transitions lead to considerable contradiction. Basarov, on the other hand, endeavors to convince his readers that it is possible to remove these contradictions with the help of a "new" theory on specific heats. It is shown that this method of unilateral conveyance cannot remove these contradictions. There are 2 figures and 3 Slavic references.

ASSOCIATION: Saratov Pedagogical Institute (Saratovskiy pedagogicheskiy institut)

SUBMITTED: August 2, 1956

AVAILABLE: Library of Congress

Card 1/1

76-10-32/34
On the Contradictions in the Thermodynamic Theory of Second Order Phase
Transitions

There are 2 figures and 3 Slavic references.

ASSOCIATION: Pedagogical Institute, Saratov
(Saratovskiy pedagogicheskiy institut)

SUBMITTED: October 23, 1956

AVAILABLE: Library of Congress

Card 2/2

MOKHNATKIN, M. P.

76-10-32/34

AUTHOR:

Mokhnatkin, M.P.

TITLE:

On the Contradictions in the Thermodynamic Theory of Second Order Phase Transitions (O protivorechiyakh v termodinamicheskoy teorii fazovykh perekhodov vtorogo roda)

PERIODICAL:

Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 10, pp.2371-2372
(USSR)

ABSTRACT:

It is referred to the papers of L.D. Landau (ZhETF, 7, 19, 627, 1937, and "Statistical Physics", publishing house GTTI, 1951) and shown that one cannot agree with his final conclusion that in the point of the phase transition of second order the specific heat suffers a jump ($c_v > c_p$). Namely for following reasons: It is known that in the case that the finite conduction exists in a certain interval it has to be a function without ordinary "fissures" and jumps. In each point it is either continuous or it has a "fissure" of second order. The specific heat is, as a derivation, in the transition point either continuous or it has a fissure of second order. Therefore a jump of the specific heat in the phase transition point is impossible at all in the case of a derivation.

Card 1/2

NOKHMATIN, M.P.

Differential equations of phase transitions. Zhur. fiz. khim. 30
no. 12:2825-2826 B⁴56. (MLB 10:4)

1. Saratovskiy pedagogicheskiy institut.
(Phase rule and equilibrium) (Thermodynamics)

MOKHATKIN, M.P.

An example of phase equilibria (in connection with lambda transitions).
Zhur.fiz.khim. 30 no.8:1889-1890 Ag '56.
(MIRA 10:1)

1. Gosudarstvennyy pedagogicheskiy institut, Saratov.
(Phase rule and equilibrium)

Category : USSR/Atomic and Molecular Physics - Low-temperature Physics

D-5

Abs Jour : Ref Zhur - Fizika, № 2, 1957 № 3529

concerning transitions of the second kind is not confirmed by experiments. It is shown that the Rutgers equation, which must be considered as approximate, can be obtained from the conditions of the phase equilibrium of the first kind.

Card : 2/2

MOKHNATKIN M.P.

Category : USSR/Atomic and Molecular Physics - Low-temperature Physics

D-5

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3529

Author : Mokhnatkin, M.P.

Inst : Saratov Pedagogical Institute

Title : Thermodynamics and Superconductivity (In Connection with the Theory
of Phase Transitions of the Second Kind).

Orig Pub : Zh. fiz. khimii, 1956, 30, No 6, 1413-1415

Abstract : The derivation of the Rutgers equation $\Delta C/T = (v/4\pi)(dH_k/dT)^2$ for the difference $\Delta C = C_n^0 - C_s$ of the specific heat of the normal and superconducting phases (H is the critical magnetic field, T the absolute temperature, v the specific volume). The derivation employs the conditions of the phase equilibrium among the boundary curve $H(T)$ in the form $\Delta\Phi = 0$, $dP_n = dP_s$, and $d(\Delta\Phi) = 0$ (Φ is the thermodynamic potential). The derivation is carried out with the aid of the theory of phase transitions of the second kind. It is noted here that the Rutgers equation can be derived only under certain incorrect assumptions. This is why the author considers the conclusion, based on this equation, that the transition into the superconduction state is a transition of the second kind, as being incorrect. It is noted that the hypothesis

Card : 1/2

USSR / Physics of Low Temperatures.

D-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9045

Abstract : shown that in the limiting case, when the phases exist along the segment $T \equiv \text{const}$ (on the p-T diagram), the compressibility of the phases is identical. Such a case is actually observed for helium when the λ -transition in helium takes place under pressure of its saturated vapors. It is concluded from these results that the λ -transition in liquid helium is a phase transition of the first (and not second) kind with small heat of transformation.

Card : 2/2

MOKHNAKIN, M.P.

USSR / Physics of Low Temperatures.

D-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, No 9045

Author : Mokhnatkin, M.P.

Inst : State Pedagogical Institute, Saratov, USSR

Title : Concerning One case of Phase Equilibrium (In Connection
with Transitions)

Orig Pub : Zh. fiz. khimii, 1956, 30, No 8, 1889-1890

Abstract : Using the conditions for the phase equilibrium and many
added considerations, the author derives a sufficient cri-
terion for their identity:

$$\Delta \varphi_{TT} (\partial T/\partial p)^2 + 2 \Delta \varphi_{PT} \partial T/\partial P + \Delta \varphi_{PP} = 0,$$

where φ is the specific thermodynamic potential. The vani-
shing of the discriminant of this equation leads to the well
known Ehrenfest equation for the "jump in specific heat"
and the Keesom equation for the curve of helium. It is

Card : 1/2

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in the problem suggestion. The cause of anomalies in the thermal behavior of the system may be due to the presence of an unusually-reacting sample.

Review by V. V. Kabanov, N. M. P. Matkovich and S. S. Goryainov. The theory of the interaction of light with matter in the physical and chemical systems. Theoretical and experimental data. Eight USSR references.

Discussion of the problem.

Some characteristics in the theory of phase conversions of the second order (in connection with the Brønsted equations)

Journal of Phys. Chem., 28, N^o. 3, 561-563, March 1924

In this paper the author discusses the hypothesis about the possibility of phase transitions of the second order for which the heat of phase conversion is zero. He also discusses the conditions under which phase conversions take place without heat. The author gives some evidence in his hypothesis: if the potential energy of the system is zero then the phases should change without heat. In a letter to the editor the author takes to bring forth the hypothesis. The author points out that the hypothesis is not new and gives some references.

Conclusion.

Journal of Inorganic Chemistry
Volume 10, Number 3, p. 272-274, 1954

Effect of pressure on the decomposition of ammonium nitrate (Discussion)

John T. M. Dill, 25, Md. 3, p. 272-274, 1954

In a recent article on the effect of pressure on the decomposition of ammonium nitrate by I. L. Leckwich, 1952, it was stated that there was no clear-cut evidence of a phase transition at 100°C. This statement is in obvious contradiction to the author's own measurements regarding the phase transition at 100°C. It is known polymorphous conversion of alpha to the gamma polymorphous form occurs at the same temperature as the decomposition of alpha below 100°C. The decomposition of alpha to gamma begins at 83°C a.s.t. instead of 100°C. This is in agreement with the compression measurements made at temperatures without decomposing the reactant. Five references;

MOGENATKIN, M.P.

Polymorphism

Polymorphism theory. Shur. fiz. khim. 16. no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, November 1952 / Uncl.

CA

2

Theory of polymorphism. M. P. Mel'nikov (Sirota).
Zhur. Fiz. Khim. 25, 616-618(1951).—According to Sirota
(C.A. 43, 7184e), the Debye theory of sp. heats is unable to
account for polymorphic enthalpic changes from the
viewpoint of thermodynamics. This statement is refuted,
whereas it is necessary to use the Helmholtz potential.
Polymorphic changes are accompanied by a vol. change (e.g.
sulfur). Polymorphism is then possible in the frame of the
Debye theory. Michel Boudart

3849. USE OF SIMPLE OPTICAL METHODS FOR THE DETERMINATION
OF GROUP CONSTITUENTS IN GASOLINE. Nekrasova, M.P.
(Uspakhi Khim., 1945, 14 148-53). Review of the
use of sp. refraction and sp. dispersion in the group
analysis of gasolines.

C. A.

METALLURGICAL LITERATURE CLASSIFICATION

THE LUMINESCENCE SPECTRA AND PROPERTIES OF THE
PROCESSED AND PROPELLED METALS

The fine structure of the triplet $(2s^2)2p_1(3s^2)P \rightarrow (2s^2)(3p)^1P$ of the carbon atom. V. M. Chulanovskii
and M. P. Mukhamatkin. *Compt. rend. acad. U.R.S.S.*, 1958, No. 1, p. 18-19 (in German). (1958). Spectro-
graphic analysis of the narrow group of C lines in the
vicinity of 1636 Å is given with tabulated data. These
data are compared with the values of Edlen (cf. *C.A.* 41,
28, 419) and Fowler and Selwyn (cf. *C.A.* 22, 1911).
M. McMahon

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DATA-RDP
PROCESSES AND PROPERTIES WORK

The fine structure of the line He II 1666 Å. V. M. Chukunov and M. P. Moshkina. *Compt. rend. acad. sci. (U.R.S.S.)* [N. S.], 1, 471-516 (in German) 475 (1954). — A photograph and diagram are given showing two groups of lines. Louis Goldsmith

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

CLOVER

"Red Clover" Reviewed by P. I. Gupalo, D. M. Savcheniuk, I. P. Mokhnatkin Sel. i sza. 19
No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

1. VOKHNATKIN, I. P., GUPALO, P. I., SAVACHENYUK, D. M.
2. USSR (600)
4. Clover
7. Yield of seed from singlecut clover on second year plots. Sov. Agron. 16,
no. 12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

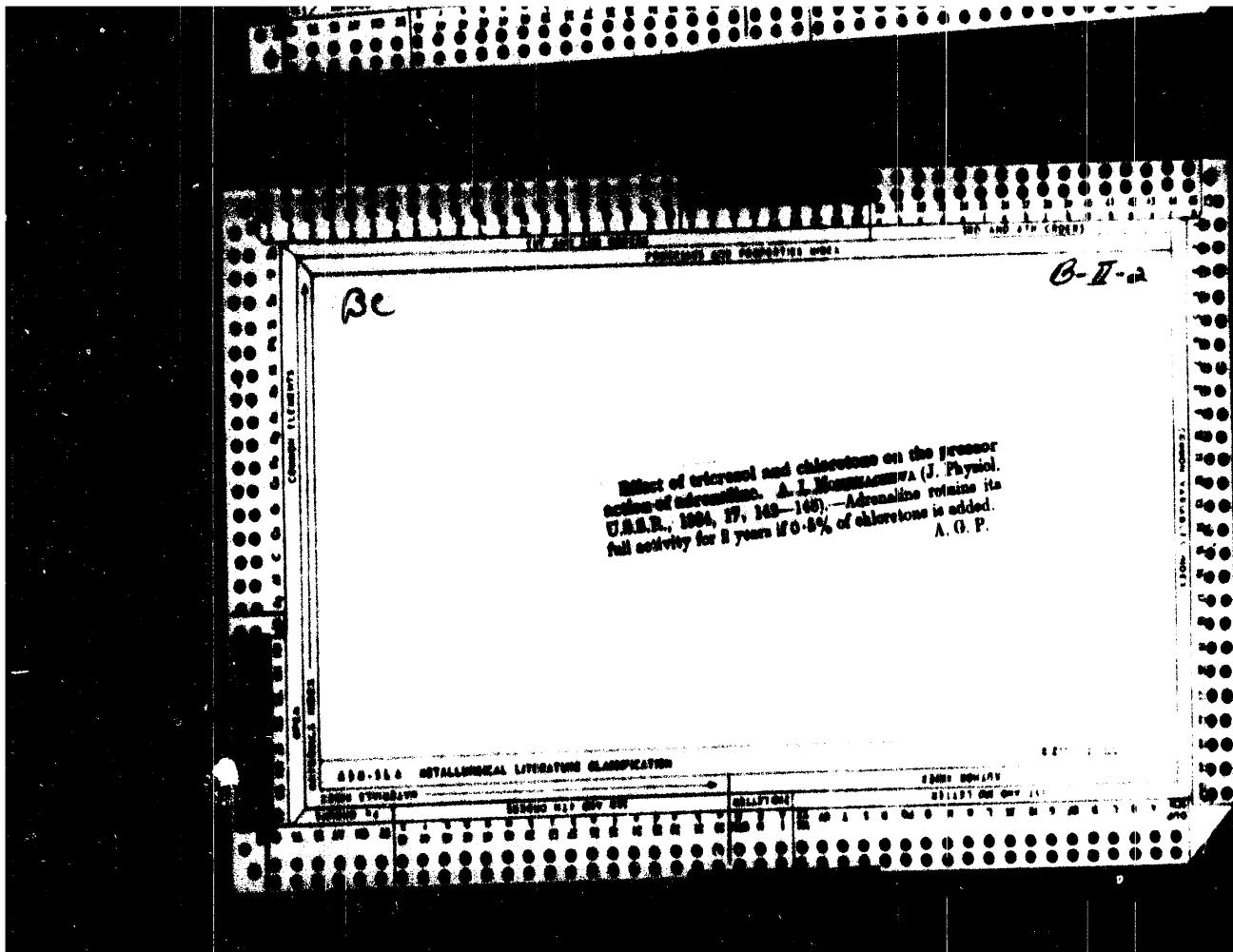
MOKHACHEVA, A.I.; SAMOYLOVA, Z.T.

Depressor action of benzoline. Tr. Vsesoiuz. obsh. fisiol. no. 1:124
1952. (CLML 24:1)

1. Delivered 2nd February 1950, Moscow.

MOKHNACHEVA, A.I.

"Comparative Chemical and Biological
Evaluation of the Bella-Donna and Henbane
Preparations," Farmakol. i Toksikol.,
5, No. 4, 1942. Pharmacological Dept.
of the Pharmaceutical Research Institute,
Leningrad, -1942-.



APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900007-6

MOKHACHEV, M.P.

Comparative evaluation of the methodology of determining the
modulus of elasticity. Nauch.sooib.IGD 14:66-76 '62.

(MIRA 16:1)

(Elasticity)

MOKHACHEV, I. G.; SERDYUK, L. G.

Rapid determining of carotene content by means of the densitometer. Izv. vys. ucheb. zav.; pishch. tekhn. no. 5:147-150
'62. (MIRA 15:10)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti.

(Food—Analysis) (Carotene)

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Determining carotene content of tomato products. Kons.i ov.prom.
17 no.5:42-43 My '62. (MIRA 15:5)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.

(Tomato products)
(Carotene)

KUL'NEVICH, V.G.; MOKHNACHEV, I.G.; FILATOVA, A.M.

Determination of the carbonyl compounds of noncarbohydrate character in furfurole condensates. Gidroliz.i lesokhim.prom.
15 no.8:16-18 '62. (MIRA 15:12)

1. Krasnodarskiy institut pishchevoy promyshlennosti (for Kul'nevich, Mokhnachev). 2. Krasnodarskiy gidroliznyy zavod (for Filatova).
(Furaldehyde) (Carbonyl compounds)

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Method for a rapid determination of carotene in canned foods.
Kons. i ov. prom. 16 no.11:38-41 N '61. (MIRA 14:11)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.
(Carotene)
(Food, Canned--Analysis)

MOKHNACHEV, I.G.; ZELINSKAYA, V.N.

Simplified method for determining the amino nitrogen in food products.
Izv.vys.ucheb.zav.; pishch. tekhn. no.6:138-140 '61. (MIRA 15:2)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti, khimiko-bakteriologicheskaya laboratoriya.
(Food—Analysis)

ASMAYEV, P.G. [deceased]; MOKHNACHEV, I.G.

Glycolic acid in raw tobacco. Izv. vys. uchet. zav.: pishch. tekhn.
no.5:40-43 '61. (MIRA 15:1)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra
tekhnologii tabaka.
(Glycolic acid) (Tobacco--Analysis and chemistry)

ASNAIEV, P.G. [deceased]; MOKHNACHEV, I.O.

Alteration of combined water-soluble carbohydrates of tobacco during its processing. Izv. vys. ucheb. zav.; pishch. tekhn. no. 2:58-63 '61. (MIRA 14:5)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra tekhnologii tabaka.
(Tobacco—Analysis and chemistry) (Carbohydrates)

MOKHNACHEV, I.G.

Determination of combined water-soluble carbohydrates of tobacco.
Izv. vys. ucheb. zav.; pishch. tekhn. no. 2:54-57 '61. (MIRA 14:5)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra
tekhnologii tabaka.
(Tobacco—Analysis and chemistry) (Carbohydrates)

MOKHNACHEV, I.G.

Determination of free water-soluble tobacco carbohydrates.
Izv.vys.ucheb.sav.; pishch.tekh. 1:147-151 '61. (MIRA 14:3)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra
tekhnologii tabaka.
(Tobacco—Analysis and chemistry)(Carbohydrates)

ARMAYEV, P.G.; MOKHNACHEV, I.G.

Changes of the free water-soluble carbohydrates and reducing substances of tobacco during its processing. Izv.vys.ucheb.zav.; pishch.tekh. 1:50-54 '61. (MIRA 14:3)

1. Krasnodarskiy institut pishchevoy promyshlennosti, Kafedra tekhnologii tabaka.
(Tobacco--Analysis and chemistry)

ASMAIEV, P.G.; MOKHACHEV, I.G.

Separation and identification of tobacco keto acids by means of
paper chromatography. Izv.vys.ucheb.zav.; pishch.tekh.no.5:160-164
'60.
(MIRA 13:12)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra
tekhnologii tabaka.
(Tobacco—Analysis and chemistry) (Acids)

MOKHACHEV, I.G.

Dynamics of changes occurring in the products of sugar amine reaction in tobacco autolysis. Izv.vys.schob, sav.: pishch. tekhn. no.4:45-50 '59. (MIRA 13:2)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra tekhnologii tabaka.
(Tobacco--analysis and chemistry)

ASMAYEV, P.G.; MOKHNACHEV, I.O.

Phosphorylation in the process of autolysis of tobacco
at various temperatures. Izv.vys.ucheb.sav.; pishch.tekh.
no.3:95-97 '59. (MIRA 12:12)

1. Krasnodarskiy institut pishchevoy promyshlennosti. Kafedra
tekhnologii tabaka.
(Tobacco) (Phosphorylation)

MOKHNACHEV, I.G.

Quantitative characteristics of products of the reaction of sugars
and amines. Izv.vys.ucheb.zav.; pishch.tekh. no.1:27-31 '59.
(MIRA 12:6)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra
tekhnologii tabaka.
(Sugars) (Amino acids) (Tobacco--Analysis and chemistry)